

*compressis prominentibus; anfractuum parte inferiore pland; umbilico patulo, crenulato.*

*Hab.* in insulis Philippinis.

Shell orbicular, discoid; spire depressed, white, whorls sharply angulated, periphery with a single series of prominent broad triangular compressed spines radiately disposed; lower part of whorls smooth; umbilicus wide, crenulated.

*Hab.* Catanuan, province of Tayabas, island of Luzon, sandy mud, 10 fathoms; *H. C.* (Mus. Cuming.)

A small species, partaking somewhat of the characters of *D. stellaris*, Adams and Reeve, but much more depressed, and the lower part of the whorls simple.

March 26, 1850.

W. Yarrell, Esq., V.P., in the Chair.

The following papers were read:—

1. ON A LEECH NEW TO THE BRITISH FAUNA.

BY J. E. GRAY, ESQ., F.R.S.

Mr. Hoffmann lately sent to the Zoological Gardens a living specimen of a very large leech which he had found near his house in the Regent's Park. It has been preserved in fluid, and now forms part of the Collection of British Animals in the British Museum.

It proved to be an adult specimen of *Trochetia subviridis*, Dutrochet (*Lamk. Hist. A. s. F.* v. 523), well-figured in the 2nd edition of Moquin-Tandon's 'Monograph of Hirudines,' t. 4. It is a very interesting addition to the fauna. It is the giant of the family, this specimen being more than 7 inches long.

2. ON THE OCCURRENCE OF REGALECUS GLESNE AT REDCAR, YORKSHIRE, IN 1850. BY J. E. GRAY, ESQ., F.R.S.

A specimen of this fish was cast ashore on Redcar Sands, Yorkshire, on Thursday, the 3rd of January 1850. "The fish was alive when found. Length without the tail-fin, which is wanting, about 11 feet; width at the broadest part, 12 inches; weight, 4 stone 10 lbs."

It was salted and exhibited at Redcar. During the exhibition the rays of the dorsal and ventral fins were almost entirely destroyed, and it broke transversely into three nearly equal lengths on being moved from the sand.

It was eventually sent to London, and now forms part of the Collection of British Animals in the British Museum. The specimen, when it arrived in London, agreed in general appearance and in all essential characters with the specimen from Cullercoats which was exhibited in London last year. Mr. Wrightson, who had the care of it at Redcar, considered, because it had no expanded forked tail, that the tail was wanting.





W H Baby

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Fig 1 a b c *Helix vellicata* Forbes  
 2 a b. H *Kelleti*  
 3 a b. H *Pandoræ*  
 4 a b. H *labyrinthus* var.  
 5 a b. *Bulimus achatinellinus*, Forbes

Fig 6 a b *Bulimus chemnitzoides* Forbes  
 7 a b. *fimbriatus* "  
 8 a b. *Succinea cingulata*. "  
 9 a b. *Cyclostoma purum*. "  
 10. *Fusus Kelleti* "

## 3. NOTE ON CALLICHTHYS AND ANABLEPS.

BY J. P. G. SMITH, ESQ.

The flesh of *Callichthys*, when cooked, is of a fine deep yellow colour, and in substance is somewhat cheesy or buttery on the tongue; it is very rich in flavour: no cleaning of the intestines appears to be necessary before preparation for the table.

In the creeks by which the island of Mexianna is intersected, these fish literally swarm and keep the waters alive and in a state of constant disturbance. I have witnessed them crossing a log of wood, which was lying in the water and intercepted the passage, in such numbers that they quite concealed it from view; and the people, when they wanted a dish, were in the habit of going down to a favourable spot and picking them out with their hands, without going into the water.

*Anableps* swims in small shoals with the eyes above the surface of the water, generally close to the shore, and so near together that I have shot twenty to thirty at a time by firing a gun among them; their flesh is very sweet, and not unlike a smelt in taste.

## 4. ON THE SPECIES OF MOLLUSCA COLLECTED DURING THE SURVEYING VOYAGES OF THE HERALD AND PANDORA, BY CAPT. KELLETT, R.N., C.B., AND LIEUT. WOOD, R.N. BY PROFESSOR EDWARD FORBES, F.R.S.

## 1. On the Land-Shells collected during the Expedition.

(Mollusca, Pl. IX.)

Officers employed on a hydrographical survey have seldom time or opportunity for making an extensive collection of land-shells. In the assemblage of mollusks collected by Capt. Kellett and Lieut. Wood, there are twenty-eight species, of which eight are undescribed forms. These have been collected at various points between the coast of the Equador to the south and Vancouver Island to the north, the Gelepagos Islands, Pitcairn's Island, and the Sandwich Isles. Unfortunately, in consequence of the mixing of unlabeled specimens, the precise locality of several of the species cannot now be determined.

Of the genus *Helix* there are nine species. Of these, *H. Townsendiana*, *Nuttalliana* and *Columbiana* are certainly from the neighbourhood of the Columbia river. *Helix Kellettii* and *Pandora*, both new, are probably from the same country, though the box in which they were contained was marked "Santa Barbara." *Helix areolata* bears no indication of its locality. *Helix labyrinthus*, variety *sipunculata*, is a very curious modification of *H. labyrinthus*, and, like its known near relations, comes from Panama. *Helix ornatella* (known also as *H. Adamsi*) was collected in Pitcairn's Island, where it had originally been observed. A single specimen of the common European *Helix aspersa* is marked "Santa Barbara," and probably owed its presence, wherever it was found, to transport by Europeans.

Of the genus *Bulimus* fourteen species were collected. Among the most interesting of these are seven species, two of them new, from

Chatham Island, one of the Gelepagos group. Five, viz. *nux*, *calvus*, *eschariferus*, *unifasciatus*, and *rugulosus*, are described forms; two, to which I have applied the names *chemnitzoides* and *achattellinus*, are new, and very curious. Of these latter, the first is singularly isolated in many of its features, though bearing a resemblance sufficient to indicate an affinity with certain elongated and turreted *Bulimi*, natives of South America. The other is equally distinct from any known members of this genus; but, moreover, instead of linking, as the majority of the Gelepagos land-shells do, the fauna of those singular islands with the American continent, rather points, as it were, in the opposite direction, and distantly indicates affinity with the fauna of the Sandwich Isles.

Unfortunately less certain as to exact locality, though contained in a box labeled "Panama," is a curious small elongated *Bulimus*, to which I have given the name *finbriatus*. A form such as this, suggests, when we bear in mind the varied characters of its congeners, considerable doubts as to the value of the generic sections at present generally received among the Pulmoniferous Mollusca. We speak of *Bulimus*, *Helix*, *Pupa*, *Achatina*, and *Balea*, as if they were so many marked groups, the species in each assimilating to ideal generic types, whereas the difference between certain forms of so-called *Bulimi* and others placed under the same generic name is greater than between many *Bulimi* and *Helices* or *Pupæ*. Without assenting to the views of Férussac, which would have amalgamated the genera into one, on account of the similarity in external characters of the soft parts of the animal, and fully admitting that in certain tribes the shell alone may become a most important source of generic character—in other words, granting that in certain groups the sources of generic distinction may lie in the pneumo-skeleton—I do think that we have not yet attained a natural arrangement of the Pulmoniferous Mollusks, and until we have solved that problem, we shall be seriously impeded in the study of the laws of their distribution as well as of their organization.

Besides the *Bulimi* already named, there are specimens of *Bulimus iostomus*, *B. Hartwegii*, and a beautiful new species lately described and figured by Mr. Reeve under the name of *Bulimus Kellettii*, all probably from the Equador; *Bulimus alternatus*, from Panama; and *Bulimus miltecheilus*, marked from the Sandwich Islands, though this curious and beautiful shell is not known to inhabit that locality; nor have we evidence sufficient that the specimen brought home by Lieut. Wood was gathered there. Hitherto it is only known from "San Christoval, south-eastern island of Solomon's Group, north-east coast of New Holland" (Reeve), from which locality the specimens in Mr. Cuming's collection were obtained, and the single example now referred to may have possibly been brought away from the same place.

Of the curious genus *Achatinella*, two species, *livida* and *alba*, are in the collection, both procured at the Sandwich Islands.

Of *Succinea* there is a new species, marked from Mazatlan; I have named it *Succinea cingulata*.

There are two species of *Cyclostoma*, the fine *C. grande* (no locality is attached to it), and an equally beautiful one which I have named *C. purum*.

The following diagnoses of the new species in the collection have been modeled on those of Dr. L. Pfeiffer, whose admirable 'Monographia Heliceorum Viventium' is one of the most valuable contributions to Malacology that have been published for many years.

**HELIX PANDORÆ.** *H. testâ obtectè perforatâ, depresso-globosâ, tenui, rugulosâ, concentricè minutissimè striatâ, anfractibus supra peripheriam fuscis, infra et prope peripheriam albidis fusco cingulatâ, basi albidis; aperturâ rotundatâ intus fuscâ albido-fasciatâ, margine interno incrassato albo; peristomate reflexiusculo, extus albo-labiato, margine columellari dilatato, reflexo, umbilicum occultante.*

Diam. max. 17, min. 16, alt. 14 mill. (Pl. IX. fig. 3 a, b.)

Collected near the Straits of Juan del Fuaco; allied to the last species, but very distinct.

**HELIX KELLETTII.** *H. testâ angustè umbilicatâ, depresso-globosâ, tenui, rugulosâ, granulatâ, fulvâ, spirâ subturbinatâ, sordidè flavo conspersâ, rufo-unifasciatâ, anfractibus 6, convexiusculis, ultimo ad peripheriam fasciâ pallidâ cincto, basi subinflato; aperturâ lunato-rotundatâ, intus pallidè fuscâ, unifasciatâ; peristomate reflexiusculo, margine columellari dilatato, reflexo, umbilicum occultante.*

Diam. max. 22, min. 19, alt. 19 mill. (Pl. IX. fig. 2 a, b.)

This species is nearly allied to *Helix Californiensis*, Lea. It differs in the more pyramidal contour of the spire, in the less tumid body-whorl, and consequently differently shaped, more lunate, slightly elongated mouth. The margin of the mouth is more reflected.

**HELIX VELLICATA.** *H. testâ apertè umbilicatâ, tenui, convexo-depressâ, subnitidâ, sulcato-striatâ, striis minutissimis spiralibus decussatâ, late viridibus; spirâ convexiusculâ, anfractibus 6, ultimo rotundato magno, anticè dilatato, subdescendente; aperturâ perobliquâ, lunato-oblongâ; faux alba, peristomate margine sub-reflexo, supernè deflexo-sinuato.*

Diam. max. 22, min. 18, alt. 8 mill.

From Panama? (Pl. IX. fig. 1 a, b, c.)

Distinguished from its near allies by the peculiar deflexion of the upper portion of the lip-margin.

**BULIMUS CHEMNITZIOIDES.** *Bul. testâ subperforatâ, turrito-subulatâ, regulariter costatâ, costis numerosis, nitidulis, flavidulâ, fasciâ spirali fusco-purpureâ cinctâ; anfractibus 14, ultimo  $\frac{1}{2}$  longitudinis subæquante, basi fusco-purpureo; columellâ subrectâ, albidâ; peristoma simplex, acutum; margine externo supernè arcuato; aperturâ ovali-oblongâ.*

Long. 19, diam. 4 mill.; apert. 3 mill. longa, 2 lata.

Chatham Island, Gelepagos. (Pl. IX. fig. 6 a, b.)

This beautiful species strikingly resembles a marine *Chemnitzia*.